Title
The US Cancer Moonshot initiative

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avoid surgery in rapidly progressive or chemo-insensitive disease.[4]

Genotyping of pancreatic tumours via fine needle aspiration could influence the clinical management of pancreatic cancer. Fine-needle aspiration sequencing was used to identify subgroups of patients with specific actionable mutations related to resectable or locally advanced tumours.[5] In patients with radiologically resectable or borderline resectable tumours, preoperative fine-needle aspiration sequencing could distinguish between patients with a genetic pattern associated with micrometastatic tumours, who should undergo neoadjuvant therapy, and those with a truly localised disease that would be amenable to a surgery-first strategy.

Michele Reni has served as a consultant for or on the advisory boards of Celgene, Boehringer-Ingelheim, Lilly, Genentech, Baxalta, Novocure, Astra-Zeneca, Pfizer, and Merck-Serono, and has received honoraria from Celgene. Massimo Falconi has received honoraria from Celgene, Ipsen and Novartis. The other authors declare no competing interests.

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1 Barreto SG, Windsor JA. Justifying vein resection with pancreatoduodenectomy. *Lancet Oncol* 2016; **17:** e118–24

2 Giovinazzo F, Turri G, Katz MH, Heaton N, Ahmed I. Meta-analysis of benefit of portal-superior mesenteric vein resection in pancreatic resection for ductal adenocarcinoma. *Br J Surg* 2016; **103:** 179–91.

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Author's reply

Stefano Crippa and colleagues, in responding to our manuscript,[1] agree that increasing the radicality of surgery for pancreatic ductal adenocarcinoma, including synchronous vein resection, is suspect. Indeed, a recent meta-analysis[2] indicates that synchronous vein resection, as reported, increases mortality and decreases survival. Crippa and colleagues put forward two interesting ideas that warrant further discussion. The first is that the surgery-first approach for pancreatic ductal adenocarcinoma might ultimately be retired, given that pancreatic ductal adenocarcinoma is usually systemic at presentation, local treatments have little effect, and neoadjuvant therapy has possible benefits. For now, the absence of high-level evidence for neoadjuvant therapy leaves largely theoretical benefits; namely that neoadjuvant therapy will reveal the biology (ie, those patients that can progress on neoadjuvant therapy will avoid futile surgery), or alter the biology (ie, those patients that are downstaged will become resectable). The preliminary results of the ALLIANCE trial[3] damages the lustre of these purported benefits with no improvement in the number of resections (10 [50%] of 20 patients who completed all preoperative therapy), and no rescue of aggressive tumour biology. This leads to the second idea, in which Crippa and colleagues suggest a biological (rather than radiological) basis for selecting patients for neoadjuvant therapy with a view to reduce the number of synchronous vein resections. Endoscopic ultrasonography-guided genotyping is a possible way to select subgroups of patients with heterogenous pancreatic ductal adenocarcinoma[4] who will benefit from neoadjuvant therapy. In support of this method, Hruban and colleagues[5] suggested that an intact *SMAD4*/*DPC4* gene might be used to select surgery because there is lesser risk of distant metastases for this genotype.[6] In the future, we hope to more accurately select a subgroup of patients in whom a surgery-first approach, and even synchronous vein resection, is justified, but it is much more likely that precision neoadjuvant therapy will ultimately result in less radical surgery and the introduction of non-surgical techniques to support the response to neoadjuvant therapy.

We declare no competing interests.

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The US Cancer Moonshot initiative

We recently sent the following letter to Vice President of the USA, Joe Biden, to state that we, as Deans and Directors of Public Health schools and programmes around the USA, strongly support the goals of the Cancer Moonshot initiative to

find cures for cancer and to reduce cancer mortality in the USA. While mortality has declined for all cancers combined, the disease continues to have a devastating effect on too many families. Intensified federal efforts to prevent, diagnose, and treat cancer are fully justified, and we congratulate Vice President Biden and President Obama for focusing renewed national attention on the investments necessary to make accelerated progress against this dreaded disease.

We are concerned, however, that the initiative may be undervaluing the crucial role that public health and prevention have played—and must continue to play—in reducing cancer incidence and mortality. Since the beginning of the so-called war on cancer, the most notable cancer successes have been due to the power and effectiveness of prevention. The massive reductions in lung, cervical, colorectal, and gastric cancer mortality rates are almost entirely due to a focus on public health and prevention approaches (including screening).

We urge you to pay careful attention to the balance between treatment and prevention-related investments. The development of new and innovative therapeutic cancer interventions is crucial, but history has shown that the greatest effect in reducing cancer mortality rates has come from preventing cancers. While curative treatments often appear more exciting to the public, investments in public health and prevention research hold even more promise for both short-term and long-term reductions in cancer incidence and mortality rates. Developing cancer cures is essential, but controlling cancer is also a policy and public health challenge. We must operate on both fronts.

As a recent commentary by Neugut and Gross[1] noted, "The cancer Moonshot must incorporate the best available tools. Our goal in the ensuing decades should be to eliminate cancer mortality. Clearly, a cancer cure is a laudable approach to that goal, but it is also possible to imagine a world where many types of cancer…will simply no longer occur." Investments in public health and cancer prevention can make an enormous impact on reducing cancer incidence and mortality and should be a priority of the Cancer Moonshot initiative.

We declare no competing interests.

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